

STRUCTURE AND METHOD TO FABRICATE SELF-ALIGNED TRANSISTORS WITH
DUAL WORK FUNCTION METAL GATE ELECTRODES

ABSTRACT OF THE DISCLOSURE

The present invention provides, in one embodiment, a method (100) of forming dual work function metal gate electrodes in a semiconductor device. The method includes forming a gate dielectric (105) over a substrate (110) and depositing a mold layer (115) having a first opening (120) therein over the gate dielectric (105). The method further includes creating a first metal gate electrode (125) by depositing a first metal in the first opening (120). Other embodiments include an active device (200) produced by the above-described method and method of manufacturing an integrated circuit (300) using the above-described method.